Amendments to the claims

This listing of claims will replace all prior versions and listings of the claims in the above application.

Listing of Claims:

Claim 1. (canceled)

Rule 1.121

Claim 41 (new) A reverse thermally viscosifying composition comprising:

a block copolymer in an aqueous medium, the block copolymer comprising,

a first polyoxyalkylene block having a hydrophobic region and a hydrophilic region, said polyoxyalkylene block forming micelles in solution in response to a change in temperature, and

at least a second block comprising a bioadhesive polymer or oligomer,

wherein the composition reversibly viscosifies at a temperature in the range of about 22°C to about 40°C.

Claim 42. (new) A pharmaceutical composition, comprising:

a reverse thermally viscosifying composition comprising,

a block copolymer having first and second blocks in an aqueous medium, wherein the first block comprises a polyoxyalkylene having a hydrophobic region and a hydrophilic region; said polyoxyalkylene block forming micelles in solution in response to a change in temperature, and the second block comprises a bioadhesive polymer or oligomer; and

an active agent which imparts a pharmaceutic or cosmetic effect, said composition characterized in that it viscosifies at a temperature in the range of about 22°C to about 40°C.

Claim 43 (new) The composition of claim 2 or 3, wherein the hydrophobic region of the polyoxyalkylene comprises poloxyethylene and the hydrophilic region of the polyoxyalkylene comprises polyoxypropylene.

44

Claim ~~5~~. (new) The composition of claim 2 or 3, wherein the bioadhesive polymer or oligomer is a mucoadhesive.

45

Claim ~~6~~. (new) The composition of claim 2 or 3, wherein the bioadhesive polymer or oligomer comprises a poly(vinylcarboxylic acid).

46.

Claim ~~7~~. (new) The composition of claim 6, wherein the poly(vinylcarboxylic acid) is selected from the group consisting of acrylic acid, substituted acrylic acid, methacrylic acid, substituted methacrylic acids, acids, and ionized forms thereof.

47.

Claim ~~8~~. (new) The composition of claim 2 or 3, wherein the polyoxyalkylene comprises a triblock polymer of polyoxyethylene (POE) and polyoxypropylene (POP) having the formula $(POP)_a$ $(POE)_b$ $(POP)_a$, where a is in the range of 100-50 and b is in the range of 50-70.

48.

Claim ~~9~~. (new) The composition of claim 2 or 3, wherein the aqueous medium is selected from the group consisting of water, salt solutions and water with water-miscible organic compound(s).

49.

Claim ~~10~~. (new) The composition of claim 2 or 3, wherein the viscosification occurs at a temperature in the range of about 30°C to about 37°C.

50.

Claim ~~11~~. (new) The composition of claim 2 or 3, wherein the block copolymer is present in an amount in the range of about 0.01 to 20 wt% of the total composition.

51.

Claim ~~12~~. (new) The composition of claim 2 or 3, wherein the block copolymer is present in an amount in the range of about 0.1 to 10 wt% of the total composition.

52.

Claim ~~13~~. (new) The composition of claim 2 or 3, wherein the block copolymer is present in an amount in the range of about 0.01-1 wt% of total composition.

53.

Claim ~~14~~. (new) The composition of claim 3, wherein the pharmaceutically active agent is selected from the group consisting of anti-ulcer agents, sucralfate, H2-blocking agents, antipyretics, analgesics, antacids, antiflatulents, anticonvulsants, antidiarrheals, antifungals, anihypertensives, antihistimines, antiprutitics, antiinfectives, antinauseants, antireflux agents, antispasmodics, contraceptives, hormonals, steroids, cough/cold remedies, diuretics, laxatives, tranquilizers, muscle relaxants, mineral supplements, sedatives, vitamins and mixtures thereof.

54.

Claim ~~15~~. (new) The composition of claim 3, wherein the pharmaceutical agent is absorbable through skin or mucosal membranes.

55.

Claim ~~16~~. (new) The composition of claim 3, wherein the pharmaceutical agent is absorbable through vaginal mucosal membrane.

56.

Claim ~~17~~. (new) The composition of claim 16, wherein the pharmaceutically active agent is selected from the group consisting of natural and synthetic hormones, anti-fungals, contraceptives, anti-yeast agents, steroids, moisturizers, spermicides, anti-virals, analgesics and anaesthetics.

57.

Claim ~~18~~. (new) The composition of claim 3, wherein the pharmaceutical agent is absorbable through nasal mucosal membrane.

58.

Claim ~~19~~. (new) The composition of claim 18, wherein the pharmaceutically active agent is selected from the group consisting of decongestants, antihistamines, anti-osteoporosis agents, hormones, antineoplastic agents, Parkinsonism drugs and vaccines.

59.
Claim ~~20~~. (new) The composition of claim 3, wherein the pharmaceutical agent is absorbable through rectal mucosal membrane.

60.
Claim ~~21~~. (new) The composition of claim 3, wherein the pharmaceutical agent is absorbable through otic mucosal membrane.

61.
Claim ~~22~~. (new) The composition of claim 21, wherein the pharmaceutically active agent is selected from the group consisting of miotics, sympathomimetrics, beta-blockers, prostaglandin, muscarinic antagonists, anti-infectives and carbonic anhydrase inhibitors.

61.
Claim ~~23~~. (new) The composition of claim 3, wherein the pharmaceutical agent is absorbable through ophthalmic mucosal membrane.

62.
Claim ~~24~~. (new) The composition of claim 3, wherein the pharmaceutical agent is absorbable through esophageal mucosal membrane.

63.
Claim ~~25~~. (new) The composition of claim 3, wherein the pharmaceutical agent is absorbable through oral cavity membrane.

64.
Claim ~~26~~. (new) The composition of claim 3, further comprising an additive selected from the group consisting of antioxidants, isotonizing agents, buffer, flavoring and preservatives.

65.
Claim ~~27~~. (new) The composition of claim 3, wherein the pharmaceutical composition is applied in the form of drops or spray.

66.
Claim ~~28~~. (new) The composition of claim 3, wherein the composition is incorporated into a

tablet for oral administration.

67.

Claim ~~29~~. (new) The composition of claim 3, wherein the composition is injectible.

68.

Claim ~~30~~. (new) The composition of claim 2 or 3, wherein the polyoxyalkylene comprises a triblock polymer of polyoxyethylene (POE) and polyoxypropylene (POP) having the formula $(POE)_a(POP)_b(POE)_c$, where a is about 100 and b is about 65.

69.

Claim ~~31~~. (new) A method of making a reverse thermally viscosifying block copolymer comprising:

providing an end-functionalized polyoxyalkylene having at least one terminal group that is reactive with vinyl(carboxylic acid);

reacting the end-functionalized polyoxyalkylene with a vinylcarboxylic acid in the presence of a polymerization initiator form a poly(vinylcarboxylic acid), wherein the at least one terminal group of the polyoxyalkylene forms a link to the poly(vinylcarboxylic acid).

70.

Claim ~~32~~. (new) The method of claim 31, wherein the terminal group is a free radical or chain transfer agent.

71.

Claim ~~33~~. (new) The method of claim 31, wherein the terminal group of the polyoxyalkylene is selected from the group consisting of acryloyl moieties, N-acryloyl moieties, and sulfhydryl moieties.

72.

Claim ~~34~~. (new) The method of claim 31, wherein the vinylcarboxylic acid is selected from the group consisting of acrylic acid, substituted acrylic acid, methacrylic acid, substituted methacrylic acids, acids, and ionized forms thereof.

73.

Claim ~~35~~. (new) The method of claim 31, wherein initiation is accomplished using a free radical initiator.